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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,515	10/24/2003	David James Wilson	3458-Z	7405

7590
Law Office of Jim Zegeer
Suite 108
801 North Pitt Street
Alexandria, VA 22314

11/09/2007

EXAMINER

SWEARINGEN, JEFFREY R

ART UNIT

PAPER NUMBER

2145

MAIL DATE

DELIVERY MODE

11/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/691,515

Applicant(s)

WILSON, DAVID JAMES

Examiner

Jeffrey R. Swearingen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2007.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-35 is/are pending in the application.
4a) Of the above claim(s) 1-23 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 24-35 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/CDC)
4) ☐ Interview Summary (PTO-413)
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____
Paper No(s)/Mail Date _____

DETAILED ACTION

1. This case has been reassigned to a new examiner.

Response to Arguments

2. Applicant's arguments with respect to claims 24-35 have been considered but are moot in view of the new ground(s) of rejection.

3. No art can reasonably be applied to the claims at this time. One of ordinary skill is unable to reasonably comprehend Applicant's invention in order to grasp what is occurring. No search could be performed because it is unclear from the claims and specification what Applicant is intending to claim, in light of the scope of the claims, and the well known definitions of IPv4 and IPv6 protocols.

Information Disclosure Statement

4. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 24-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

7. The test of enablement is given in MPEP 2164.01. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) gave a series of factors for consideration to determine whether sufficient information existed regarding the subject matter of the claims as to enable one skilled in the pertinent art

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to make and use the claimed invention and whether any necessary experimentation is "undue". These factors include, but are not limited to:

- (a) The breadth of the claims;
- (b) The nature of the invention;
- (c) The state of the prior art;
- (d) The level of one of ordinary skill;
- (e) The level of predictability in the art;
- (f) The amount of direction provided by the inventor;
- (g) The existence of working examples; and
- (h) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988)

The *Wands* factors are applied below.

- (a) The breadth of the claims: Applicant's invention is toward accessing header information embedded within packets. The independent claims are broad enough to encompass IPv4 and IPv6.
- (b) The nature of the invention: Applicant's invention deals with reading IPv6 packets for header information.
- (c) The state of the prior art: Applicant provided limited articles involving IPv6 and "Multi-Field Classification." It is unclear from the specification or claims whether this art is in the same field as Applicant's currently claimed invention.
- (d) The level of one of ordinary skill: For this analysis, one of ordinary skill in the art is presumed to have a Bachelor's degree in Electrical or Computer Engineering, and 3-5 years of industry experience. Alternately, one of ordinary skill in the art is considered to be the inventor.
- (e) The level of predictability in the art: Networking is a relatively predictable art.
- (f) The amount of direction provided by the inventor: Applicant failed to give adequate direction to allow one of ordinary skill in the art to implement this invention.

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Applicant's invention, when the claims are considered in their entirety and in light of the specification, fails to give significant information necessary for one of ordinary skill to make or use the invention.

Applicant's invention claims *caching extension header data indicative of the length of extension headers of packets; responsive to a packet containing extension headers, building a cache key for said packet and performing a cache lookup for a cache entry corresponding to said cache key; and responsive to finding a corresponding cache entry, reading said extension headers data in parallel to arrive at and read fields in the upper-layer header.*

Applicant failed to disclose the location of the caching of data. Applicant failed to disclose the method of caching the data. The claim can currently be read in one reading as the cache entry occurring within the packet header, which would cause extensive race conditions upon accessing the caching data later in step c.

Applicant stated the extension headers are read in parallel "to arrive at and read fields in the upper-layer header". One of ordinary skill in the art has no concept what Applicant is intending to convey with the current wording of this phrase. The specification was looked to for further guidance, but this language is lifted verbatim from the specification. Specification, paragraph 0010.

The best reading that can be ascertained from the specification to give light on "to arrive at and read fields in the upper-layer header" is "MFC is performed on the packet, and the packet is accepted" in Specification, paragraph 0033. One of ordinary skill in the art is unaware how to perform MFC. Applicant failed to provide any information in the specification about how to perform MFC. Paragraphs 0005 and 0008 in the background of the specification provide information that Multi-Field Classification (MFC) is performed based on a 5-tuple set, and alternately, a 3-tuple set. One of ordinary skill in the art is unaware how to perform MFC, much less how to perform MFC based on a 5-tuple or 3-tuple set.

It is further noted that the claimed invention detects packets that do not have an Internet header length field. The default header of an IP packet includes an header length.

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Internet packets with no header length do not enter the network. The independent claims are broad enough to encompass IPv4 and IPv6. In IPv4, it is necessary to specify the header length. One of ordinary skill in the art is unaware of IPv4 packets which would include extension headers. In IPv6, it is not necessary to specify the header length since the header has a fixed length of 40 bytes. Applicant may wish to revisit the claim language, as there is a discrepancy between the idea of a header length and an extension header length.

(g) The existence of working examples: Applicant provided no working examples.
and

(h) The quantity of experimentation needed to make or use the invention based on the content of the disclosure: The invention cannot possibly be enabled under IPv4 based on the scope of the claims because of the presence of extension headers and packets which do not have an internet header length field. One of ordinary skill cannot comprehend what Applicant's intended effect of section (c) of the claims is.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can normally be reached on M-F 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason D Cardone/
Supervisory Patent Examiner,
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JRS